

Mouse Molecular Genetics

Session 1 EPIGENETICS

WEDNESDAY 8/30/2006, 7:30 PM

T. Magnuson

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
1	Magnuson	The polycomb group protein EED is dispensable for the initiation of random X-chromosome inactivation	25
2	Plass	DNA methylation in mouse models for human leukemia/lymphoma	25
3	Donohoe	Characterization of CTCF function and interacting proteins during X chromosome inactivation	12
4	Hemberger	Epigenetic regulation of early lineage specification in embryos and ES cells	12
5	Teixeira da Rocha	The function of the imprinted gene <i>Delta-like 1 (Dlk1)</i> in mouse development	12
6	Wang	Dual functional roles of histone lysine demethylase LSD1 in terminal differentiation and cell type switching during mammalian organogenesis	12
7	Barlow	Control of imprinted expression by the <i>Air</i> ncRNA—A matter of activation inhibition	25

Session 2 GENETICS AND GENOMICS

THURSDAY 8/31/2006, 9:00 AM

D. Hilton

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
8	Hilton	Modifier screens in the mouse reveals novel regulators of hematopoietic stem cell functions	25
9	Gunn	Genetic interaction between <i>attractin</i> and a related gene affecting pigmentation and neuronal survival	12
10	Wiley	Natural variation in glucose regulation partly mediated by the Y chromosome	12
11	Bradley	EUCOMM—A resource of targeted conditional mutations in the mouse	12
12	Church	Analysis of large-scale variation and segmental duplication in the mouse genome	12
13	Symer	Many mouse strain dimorphisms are due to recent L1 retrotransposition	12
14	Cox	Survey of organ and organelle protein expression in mouse—Combined proteomic and transcriptomic profiling	12
15	Wiltshire	Haplotype associated mapping in the mouse—Linking genes to phenotypes	25

Session 3 POSTER SESSION I

THURSDAY 8/31/2006, 2:00 PM

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
16	Abe	<i>Twist1</i> gene dosage contributes to craniofacial defects in endothelin-A receptor-deficient embryos	

17	Akhmedov	Cardiac-specific overexpression of junD leads to a dilative cardiomyopathy phenotype in mouse
18	Alisch	Disruption of the microRNA pathway by the targeted loss of <i>eIF2C2</i> results in aberrant primitive streak formation
19	Alur	Is tyrosinase a molecular regulator of <i>Pax2</i> related ocular phenotype?
20	Andersson	GDF-11 signals through the TGF- β receptor Alk5 to regionalize the anterior-posterior axis
21	Apedaile	The dynamics of DNA methylation on the mammalian sex-chromosomes during X-inactivation
22	ARTUS	Functional analysis of <i>Ovum mutant candidate gene 1</i> —From early mouse development to cell cycle control
23	Aubin	Cell autonomous and non-cell autonomous effects of the loss of <i>Hoxa5</i> gene on lung development
24	Bagchi	Identification and functional characterization of a novel tumor suppressor region at human <i>1p36</i>
25	ISERN	Maturation and enucleation of primitive erythroblasts is accompanied by changes in cell surface antigen expression
26	berlivet	A 2.5 kb H1 shRNA vector for high efficiency RNA interference in embryonic stem cells
27	Bjork	Phenotype, genetic and developmental characterization of <i>cpo1</i> , a recessive ENU-induced mouse model of cleft palate
28	Bloomekatz	The role of Pten in the specification of the anterior-posterior axis during gastrulation
29	Bosman	Analysis of Catweasel mutant mice identifies a novel role for <i>Six1</i> in sensory patch development
30	Brylka	Genetic analysis of the zinc finger transcription factor Bcl11B in the postnatal hippocampus
31	Buac	Characterization of neural crest defects observed in <i>wireless</i> , a novel ENU-induced allele of <i>ErbB3</i>
32	Catalanotti	MEK1 ablation leads to embryonic lethality and upregulation of ERK
33	Sham	A <i>Hoxb3</i> mouse mutant with abnormal thoracic body wall development
34	Chen	Foxn1-lacZ mutant mice phenocopy aging-associated thymic involution
35	Chen	The physiological role of phosphorylation of GATA-1 at serine residue 26 in vivo
36	Chen	<i>Msx1</i> and <i>Msx2</i> are essential for myocardial patterning and morphogenesis of the outflow tract and atrioventricular cushions
37	Chi	The Rnase III enzyme Dicer is required for kidney epithelium morphogenesis
38	CHO	The characterization of FK506-binding protein 8 in mammalian hedgehog signaling
39	Coluccio Leskow	Identifying cis and trans regulators of Sonic hedgehog expression in the mouse forebrain
40	Dahlhoff	The gastrointestinal phenotype of betacellulin transgenic mice
41	De Mees	Role of alpha-fetoprotein in female brain sexual differentiation and fertility
42	Dolle	EURExpress, a web-based transcriptome atlas of the developing mouse embryo

43	Duselis	Imbalance in proliferation and differentiation resulting in hybrid growth disorders
44	Engin	Notch regulation of osteoblast proliferation and differentiation
45	Norris	A genetic screen identifies novel roles for left-right patterning genes in pulmonary, craniofacial, ocular and limb development
46	Flora	The basic helix-loop-helix transcription factors Math1 and E2-2 interact during nervous system development
47	Fu	<i>Msx2</i> functions in head mesoderm and osteogenic mesenchyme in the patterning of the skull vault
48	Fuchs	The European Mouse Mutant Archive (EMMA)
49	Fuchs	A new standard—Phenotyping in the German Mouse Clinic
50	Garcia-Garcia	The <i>chato</i> mutation disrupts antero-posterior axis elongation of the mouse embryo
51	Gorivodsky	Essential role of selective LIM binding protein in the maintenance of the mid-hindbrain boundary
52	Granier	Early steps of Nodal signaling activity in the mouse embryo characterized using fluorescent reporter lines
53	Hämäläinen	Generation of <i>Trim37</i> knock-out mice
54	Harandi	Role of BMP4 signaling in short-term erythroid repopulation following bone marrow transplant
55	Hitoshi	Overexpression of platelet derived growth factor B (PDGF-B) causes abnormal Schwann cell and glial cell proliferation in the spinal cord mimicking Schwannosis seen in NF2 patients
56	Przemeck	Towards the function of the PDZ-binding motif of Delta1
57	Hou	A systematic and efficient screen for endoderm-specific genes by serial analysis of gene expression (SAGE)
58	Lin-Chao	<i>Gas7</i> mutation impairs motor behavior of mutant mice during aging
59	Huang	Selective isolation of homozygous mutant ES cells using the <i>Blm</i> deficient background
60	Iwamoto	Performing a recessive genetic screen using mouse embryonic stem cells to identify components of the RNAi pathway
61	Sato	Signaling pathways that reset circadian gene expression in mammalian fibroblast cells
62	Jang	Development of an efficient genetrap transposon system in mice
63	Järvinen	Continuous tooth generation in mouse is induced by activated Wnt/ β -catenin signaling
64	Bhattacharya	Cardiac, adrenal and neural crest development—Role of <i>Cited2</i> and the polycomb genes <i>Mei18</i> & <i>Bmi1</i>
65	Jiao	In vivo functional analysis of Mahogunin ring finger 1 protein isoforms
66	John	Functional analysis of the C2H2 zinc finger transcription factor Bcl11a during development of the dorsal spinal cord
67	Lahti	<i>Fgfr1</i> regulated neurogenesis in the midbrain-hindbrain region

68	Mishina	BMP signaling through type IA receptor in osteoblasts plays age-dependent roles during bone development and bone remodeling
69	Kaneda	Maternal miRNAs are essential for early mouse development
70	Kawase	Influence of transportation on freeze-dried mouse spermatozoa
71	Kim	YY1 functions for the differentially methylated region of <i>Peg3</i>
72	Kimura-Yoshida	Identification and characterization of cis-acting elements regulating expression of the <i>Otx2</i> gene during anterior-posterior axis development
73	Komatsu	Enhanced BMP signaling through a type I receptor, BMPRIA, in cranial neural crest is a potential cause for craniosynostosis
74	Laufer	Twist1 and Hand2 antagonistically regulate limb patterning
75	Kumar	Defining the role of nodal in various domains using conditional mutagenesis
76	Kwon	Mouse strains with transgene expression in visceral and definitive endoderm derivatives
77	Labialle	Inter- and intra-individual variation in expression levels of imprinted genes—Roles of circadian rhythms and genotype
78	Landrum	Mouse genome resources at NCBI
79	Lee	Genetic analysis of early morphogenesis mutants
80	Schenkel	Expression of the HPV11 E2 gene transgenic mice does not result in alterations of the phenotypic pattern
81	Li	Function of microRNAs in mouse embryonic and adult hearts
82	Niederreither	Retinoic acid regulates myocardial and coronary artery differentiation
83	Hsu	Genetic regulatory circuits in skull morphogenesis
84	Liu	Gcm2 is required for the differentiation and survival of parathyroid precursor cells in the parathyroid/thymus primordia
85	Lu	ETS transcription factors Pea3 and Erm mediate the effects of GDNF/Ret signaling in the developing kidney

Session 4 STEM CELLS AND DIFFERENTIATION

THURSDAY 8/31/2006, 7:30 PM

E. Fuchs			
#	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
	Fuchs	No Abstract	25
86	Levine	GDF-3 is a BMP inhibitor in stem cells and early embryos	12
87	Berthet	Combined loss of Cdk2 and Cdk4 results in embryonic lethality and Rb hypophosphorylation	12
88	Zong	Modeling sporadic loss of heterozygosity in mice using MADM, a genetic mosaic system	12
89	Klar	Regulation of DNA strand segregation in mouse cell divisions	12
90	Li	Coordination of extrinsic and intrinsic signals in stem cell regulation	25

Session 5 NEUROBIOLOGY

FRIDAY 9/1/2006, 9:00 AM

L.-H. Tsai

#	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
	Tsai	Title Only: A microtubule based mechanism regulating interkinetic nuclear migration in neural progenitors	25
91	Enikolopov	Selected classes of progenitor cells in the adult brain are targeted by antidepressant treatments	12
92	Griffiths	Location analysis identifies distinct cellular pathways by which Pax6 controls a diverse set of neurodevelopmental processes	12
93	Huang	Molecular mechanisms underlying subcellular synapse organization—Role of L1 family cell adhesion molecules	12
94	Iulianella	Cutl2 (Cux2) regulates neural stem cell proliferation and differentiation in the developing spinal cord	12
95	Specca	Positional cloning and characterization of an ENU-induced allele of the mouse Unc-79 gene	12
96	Tarabykin	Smad-interacting protein-1 (SIP1/ZFHX1B) acts upstream of Wnt signaling in the control of cerebral cortex development in the mouse	12
97	Anton	Mechanisms of neuronal differentiation in the developing cerebral cortex	25
	Dulac	No Abstract	25

Session 6 MOUSE GENOME BIOINFORMATICS WORKSHOP

FRIDAY 9/1/2006, 2:00 PM

D. Church

Session 7 POSTER SESSION II

FRIDAY 9/1/2006, 4:00 PM

#	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
98	Mahoney	Discs-large homolog (DLGH1) regulates smooth muscle orientation in the mouse ureter	
99	Majewski	An ENU-induced mutation in the start codon of <i>Gata-1</i> disrupts megakaryocyte maturation and causes thrombocytopenia	
100	Margagliotti	The Onecut transcription factors HNF-6 and OC-2 regulate early liver development by controlling hepatoblasts proliferation and migration	
101	Matalova	Dental apoptosis machinery in the mouse	
102	Mavrakis	Arkadia enhances P-Smad2/3 signaling by coupling turnover with high activity	
103	Meyer	Acute cataract and cataract repair in the C57BL/6 mouse lens following UVR-B exposure	
104	migeotte	Role of Rac1 in the regulation of cell migration during early mouse development	
105	Migliaccio	An ultrastructural biology approach toward the identification of the patho-biological pathway leading to the development of myelofibrosis in the <i>Gata1^{low}</i> mutants	
106	Miura	Requirement of BMP signaling in the establishment of anterior-posterior axis in the mice	
107	Moran	Utilization of whole genome SNP panels for efficient genetic mapping in the mouse	
108	Moreno	RNAi-based gene silencing in transgenic mice bearing pSUPER-derived constructs	
109	Mourikis	Investigating the lineage relationships of mouse skeletal muscle stem/progenitor cells	
110	Ocbina	Characterization of neural tube defects in the <i>Zic2^{fli/fli}</i> mutant	

111	Oda	Targeted disruption of the histone methyltransferase PR-Set7 results in early pre-implantation lethality
112	ODA	DNA methylation regulates long-range gene silencing of an X-linked homeobox gene cluster in a lineage specific manner
113	Ovitt	<i>Asc13</i> , a member of the achaete-scute family, is involved in development of olfactory epithelia and ductal exocrine organs
114	Howard	Neuregulin3 signaling in epithelial and mammary gland morphogenesis
115	Peng	MAML1 mediated Notch signaling specifies two V2 interneuron subtypes by regulating <i>Scl</i> expression in the vertebrate spinal cord
116	Polanco	Functional analysis of KRAB genes in sex determination
117	Porayette	BMP4/Madh5 dependent signaling is required for the initial expansion of erythroid progenitors in the embryo
118	DeChiara	A new method to produce phenotypable mice that are fully derived from gene-targeted embryonic stem cells
119	Qian	Giantin is necessary for the early heart morphogenesis in mouse embryos
120	Qiu	Analysis of global gene expression in the mouse mammary gland after hormone treatment
121	Quwailid	ENU archive of DNA and sperm—A mutation in every mouse gene
122	RAMANATHAN	Integrating functional and positional candidates for lactation performance in two inbred mouse strains
123	Ray	Sequence triangulation reveals chiropteran lineage specific changes in the HoxD global control region
124	Richardson	The EMAGE database—Using space to describe and analyze gene expression patterns during mouse embryo development
125	ISHIBASHI	Analysis of fibroblast growth factor 15 cis-elements reveals two conserved enhancers which are closely related to cardiac outflow tract development
126	Sandell	<i>Trex</i> mouse mutant reveals new rate-determining step in embryonic retinoic acid synthesis
127	Sawada	<i>Tead1</i> and <i>Tead2</i> are required for proper development of the node, the notochord and the trunk germ layers
128	Schwab	Optimizing cryopreservation of transgenic mice
129	Shih	Expression and function of cardiovascular heat shock protein (cvHsp, HspB7) during cardiac development
130	Simon	Homeobox gene <i>Sax2</i> deficiency causes imbalance in energy homeostasis
131	Simpson	Pleiades Promoter Project—Genomic resources advancing therapies for brain disorders
132	Sinjushina	Interaction of Fgf and Wnt signals in midbrain and rhombomere 1 development
133	Ringwald	The mouse gene expression database (GXD)
134	Souilhol	Is the Notch pathway involved in mouse preimplantation development?
135	Stanfel	<i>Nkx3.2</i> and Hedgehog pathway intersect to pattern axial skeleton

136	Stauber	Changing the period of oscillatory genes regulating somitogenesis
137	Suzuki	Characterization of retrotransposon-derived <i>PEG10</i> in a marsupial, the tammar wallaby
138	Bhattacharya	A recessive ENU mutagenesis screen for cardiac and late-gestational malformation using magnetic resonance microscopy
139	Takaoka	The mouse embryo autonomously acquires anterior-posterior polarity at implantation
140	Tomczuk	Accessing data on mouse models of human disease
141	Prostak	Efficient method for repeated, homologous targeting of the same genetic locus in embryonic stem cell lines—'Plug and socket' targeting
142	Trichas	Elucidating the cellular basis for the directional migration of AVE cells
143	Tsang	A mouse model for age-related macular degeneration (AMD)
144	Tuson	Dual roles for wimple in HH signaling and in transcription?
145	Tzouanacou	Retrospective clonal analysis of the progenitors for the mouse rostrocaudal axis
146	Valerius	Ectopic Notch signaling results in patterning defects in the developing nephron
147	Valerius	The GenitoUrinary Development Molecular Anatomy Project (GUDMAP)—Analysis of Wnt4 mutant renal tubules
148	Vrana	Epigenetic alterations in inter-species hybrids
149	Wang	A genetic screen for host factors required for retroviral infection and integration in ES cells
150	Watanabe	Identification and characterization of two novel classes of small RNAs in the mouse germline
151	Watkins-Chow	A sensitized mouse mutagenesis screen for novel-loci regulating mammalian neural crest development
152	Wilson	Ars2 plays an essential role in early mammalian development
153	Wilson	Getting into the zona—Evolution and function of mouse zonadhesin
154	Wong	Generation of a conditional allele of mouse folate binding protein 1 (<i>Folbp1</i>)
155	Yallowitz	A Hox11-Pax2-Eya1 complex directly regulates <i>Six2</i> and <i>GDNF</i> expression in the developing mammalian kidney
156	Yang	<i>Eomesodermin</i> and <i>Foxa2</i> as positive and negative mediators in activin signaling regulated <i>Mixl1</i> gene expression
157	Xu	Mechanism for cell sorting and surface positioning in the formation of visceral and parietal endoderms in early mouse embryos
158	Yang	Ectoderm deletion of <i>Ap-2α</i> leads to orofacial clefts, ventral body wall closure defects, limb and hair anomalies
159	Yi	Fgf receptors are essential in lung mesenchyme for cell differentiation and branching morphogenesis
160	Gao	Developmental defects in FRP targeted mice
161	Zhang	Dicer function is essential for somite cell survival in mouse

- 162 Zhao Functional characterization of PLC γ 1 in endoderm development
 163 Zhou Lipoic acid synthetase is specifically required for forebrain formation in the mouse embryo

Session 8 ROSA BEDDINGTON LECTURE / SIGNALING

FRIDAY 9/1/2006, 7:30 PM

S. Yamanaka

Rosa Beddington Lecture: Virginia Papaianou

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
164	Yamanaka	Identification of factors that generate pluripotent stem cells from fibroblast culture	25
165	Caspary	The role of Arl13b in the structural integrity of cilia is essential for its signaling function in mammalian development	12
166	Lacy	A conserved nucleoporin coordinates mouse embryonic development by promoting differentiation of specific cell subsets	12
167	Li	Fgf8 is required for regulation of <i>Brachyury</i> and morphogenetic process prior to the onset of gastrulation	12
168	Sasaki	Wnt signaling actively maintains identity of the notochord progenitor cells	12
169	Tran	THM1 is a novel negative regulator of mouse Sonic Hedgehog (SHH) signaling that affects ciliogenesis	12
170	Dolle	Retinoic acid signaling regulates patterning and differentiation of mesodermal and neurectodermal cells during mouse embryonic axis elongation	25

Session 9 ORGANOGENESIS

SATURDAY 9/2/2006, 9:00 AM

C. Wylie

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
171	Wylie	Germ cells and the formation of the embryonic gonad	25
172	Cardoso	Inhibition of TGF β signaling by endogenous retinoic acid is essential for primary lung bud induction	12
173	Day	Gdf5 regulates joint formation by actively suppressing the canonical Wnt signaling	12
174	Gierl	The zinc-finger factor Insm1 (IA-1) is essential for the development of pancreatic β -cells	12
175	Ornitz	Differential regulation of myocardial growth and coronary vascular development by FGF, HH and Vegf signals	12
176	Tollkuhn	Transcriptional regulation of pituitary development by a homeodomain: β -catenin complex	12
177	Weatherbee	Ldl-receptor-related protein 4 is a critical component for neuromuscular junction formation	12
178	Wei	Pitx2 can regulate the transcription of DEPDC1B, a cell membrane protein that is important for cardiac morphogenesis	12
179	Logan	Transcriptional control of limb initiation and limb-type identity	25

Session 10 HUMAN DISEASE MODELS: NEUROGENETIC DISEASES

SATURDAY 9/2/2006, 2:00 PM

C. Walsh

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
180	Walsh	Mechanisms of neuronal migration to the cerebral cortex	25
181	Cheah	Insight into the molecular pathogenesis of campomelic dysplasia revealed by a conditional Sox9 mutant mouse model	12
182	Deussing	Conditional overexpression of CRH in mice—An animal model for understanding the development of CRH-mediated brain pathology	12
183	Hitz	Conditional knockdown of MAPKs via RNA interference in the adult mouse brain	12
184	Wong	Complex behavior including hyperactivity and cognitive deficits in <i>Nr2e1</i> -null mice	12
185	Lin	Creating and characterizing a murine model of Treacher Collins syndrome (TCS)	12
186	Ma	Function of nonmuscle myosin II in mouse development	12
187	Roebroek	Inactivation of signaling motives in LRP1-ICD by application of a RMCE knock-in procedure results in increased atherosclerosis in LDLR-deficient mice	12
188	Gleeson	Mouse models of human lissencephaly	25

Session 11 PATTERNING

SUNDAY 9/3/2006, 9:00 AM

K. Anderson

<u>#</u>	<u>Iname</u>	<u>Title</u>	<u>Talk Length</u>
189	Anderson	The roles of cilia in mouse developmental signaling pathways	25
190	Cole	Lunatic fringe plays key roles in the segmentation clock and during somite patterning	12
191	Yamaguchi	Wnt3a/ β catenin signaling spatially positions segment boundaries by specifying presomitic mesoderm fates and repressing boundary formation	12
192	Yashiro	The hemodynamics created by left side specific Pitx2 regulates the asymmetric morphogenesis of aortic arch	12
193	Arkell	<i>Zic2</i> is required for the development of the prechordal plate	12
194	MEILHAC	Formation and growth of extra-embryonic tissues during mouse peri-implantation development	12
195	Rodriguez	BMPs and anterior neural specification in mouse	25
	Shen	Title Only: Regulation of Nodal pathway activity in pre-gastrulation development	25